IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

IN RE: CHICAGO BOARD OPTIONS EXCHANGE VOLATILITY INDEX MANIPULATION ANTITRUST LITIGATION	Case No. 1:18-cv-04171 MDL No. 2842 Honorable Manish S. Shah

REPLY MEMORANDUM OF LAW IN SUPPORT OF
CBOE DEFENDANTS' MOTION TO DISMISS

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TABLE OF CONTENTS

TABLE OF AUTHORITIES

CASES

STATUTES

OTHER AUTHORITIES

INTRODUCTION

Plaintiffs' complaint should be dismissed with prejudice. The amended complaint fails to cure the pleading defects identified in the Court's order dismissing the prior complaint, and introduces new pleading defects.

The Court dismissed Plaintiffs' prior securities fraud claim because Plaintiffs did not plead scienter. That remains true. Plaintiffs expressly acknowledge that Cboe had a non-fraudulent rationale for designing the SOQ the way it did—to promote legitimate efforts at "replication," and hence attract liquidity providers who would make VIX derivatives more effective for all market participants. Plaintiffs' theory is not that Cboe *intended* third parties to manipulate, but rather that Cboe knew or should have known that third parties would exploit the SOQ. That is insufficient to plead aiding-and-abetting—let alone the primary liability necessary to survive a motion to dismiss.

Moreover, Plaintiffs' theory requires crediting the implausible: that Cboe developed a product whose susceptibility to manipulation landed precisely in an unlikely sweet spot where publicly available information would make it just clear enough to would-be manipulators that they could exploit it, yet that same public information would be veiled enough to elude the notice of two federal regulators, as well as all of the alleged manipulators' victims. This is so implausible that it cannot satisfy *Twombly*, let alone the PSLRA's pleading standard.

The Court also dismissed all of Plaintiffs' prior claims because Plaintiffs had not pleaded loss causation. The Court identified the specific information regarding both sides of transactions necessary to plead loss causation, yet Plaintiffs refused to include it in the complaint. To cure that pleading defect, Plaintiffs now include a 36-page "appendix" consisting of allegations that do not appear in the complaint. Submitting new allegations in response to a motion to dismiss is wholly improper and the appendix therefore should not be considered, but even the new allegations in the appendix do not *plausibly* plead loss causation. Plaintiffs' claims depend on combining the effects

of two directly contradictory models, which requires Plaintiffs to argue simultaneously that the spot VIX is and is not the product of manipulation. Plaintiffs claim they are offering "alternative arguments" (a concession that does appear in the complaint itself). But what Plaintiffs actually are doing is impermissibly offering alternative *facts*—combining two irreconcilable factual premises into the same claim, which makes Plaintiffs' claim not only *implausible*, but *logically impossible*. And despite a bevy of poorly-explained and contradictory models, Plaintiffs have not advanced a coherent explanation of how alleged manipulation in the VIX SOQ could have injured market participants holding positions in different securities that did not settle using the VIX SOQ.

With respect to their CEA claim, Plaintiffs' new theory that the post-2003 VIX formula was intended to, and did, promote replication provides a legitimate explanation for the allegedly manipulative trading patterns in the SOQ. To evaluate a possible disciplinary action, Cboe would need to distinguish legitimate replication market activity from allegedly manipulative conduct—requiring *discretion.* Plaintiffs therefore must meet the CEA's heightened bad-faith standard, which they have not. Moreover, Plaintiffs have not pleaded that they were injured by Cboe's *failure to enforce rules* (as opposed to Cboe's design choices or the alleged manipulation itself).

Finally, Plaintiffs fail to plead manipulation by *anyone*, a predicate for all their claims.

For all these reasons, Plaintiffs' amended complaint should be dismissed with prejudice.

ARGUMENT

I. Plaintiffs' Claim Based on Rule 10b-5 Should Be Dismissed With Prejudice.

The Court should dismiss Plaintiffs' Rule 10b-5 claim because they have not adequately alleged scienter, loss causation, or any actionable conduct within the repose period.

A. Plaintiffs Have Not Adequately Alleged Scienter.

For several reasons explained below, Plaintiffs have not "state[d] with particularity facts giving rise to a strong inference" of scienter. 15 U.S.C. § 78u-4(b)(2)(A).

1. Plaintiffs' Motive-and-Opportunity Scienter Theory Is Insufficient as a Matter of Law.

The fundamental problem with Plaintiffs' scienter case is that it is nothing more than a motive-and-opportunity case, which is insufficient under Seventh Circuit precedent. Plaintiffs do not offer *any* particularized allegations about *anything* that happened within Cboe. There are no confidential witnesses or internal documents. The dates and places of the alleged fraud are not identified; nor is the specific VIX SOQ trade activity conducted by the alleged fraudsters. Instead, Plaintiffs proffer aggregate data generated by statistical models created by their experts that purport to identify patterns of alleged fraud; observe that Cboe has a profit motive; and therefore attempt to infer that someone at Cboe must have been reckless. This is insufficient as a matter of law to state a claim. *Makor Issues & Rights, Ltd. v. Tellabs, Inc.*, 437 F.3d 588, 601 (7th Cir. 2006) ("*Tellabs I*"), *vacated on other grounds*, 551 U.S. 308 (2007); MTD 8-10.

Plaintiffs argue that they are not pleading scienter based on motive and opportunity because "the AC is replete with allegations showing Cboe's knowledge and circumstantial evidence of its misconduct." Pls.' Opp'n to Cboe's MTD Amended Compl., ECF No. 281 ("Opp.") 20 n.11. It is not. Plaintiffs' "allegations showing Cboe's knowledge" consist of allegations that *manipulation was purportedly occurring* together with the guess that Cboe *must* have known about it. In the first instance, Plaintiffs' allegation regarding aggregated trade data after VIX derivatives were launched does not—and cannot—show anything about Cboe's state of mind when designing the SOQ years earlier. And the alleged "circumstantial evidence of [Cboe's] misconduct" after the SOQ design is *pure* motive-and-opportunity reasoning. Plaintiffs allege that Cboe had the profit *motive* to allow the manipulation to continue. They further allege that Cboe had the *opportunity* to stop manipulation and did not. Plaintiffs therefore infer that Cboe had the scienter to commit securities fraud. *Tellabs I* holds that under the PSLRA, this is not enough.

The sole allegation that Plaintiffs could claim arguably sheds light on the mental state of any Cboe decisionmaker is so weak that it only underscores why Plaintiffs' claim fails. Plaintiffs refer to a YouTube video involving a trader—not a Cboe employee—who allegedly is a former member of Cboe's "Product Development Committee." Opp. 19; *see* Compl. ¶ 81 & n.15. But as Cboe explained (MTD at 59-60), in this video, the trader makes the unremarkable point that the settlement value can go down or up depending on whether traders buy or sell SPX Options, and presents this activity as an obvious consequence of the publicly available VIX formula used in the SOQ. This video contradicts Plaintiffs' theory that "manipulation" was occurring and that Cboe thought it had something to hide.

Even if motive-and-opportunity allegations were legally sufficient to state a claim, Plaintiffs' "motive" allegations would be insufficient to meet the standard. Plaintiffs allege that within the limitations period, Cboe "refused to change the SOQ process" because it wanted to generate "additional fees" and avoid "crash[ing] CBOE's stock price." Compl. ¶¶ 173-174. These generic allegations are insufficient to plead a motive to commit fraud. *Pension Tr. Fund for Operating Eng'rs v. Kohl's Corp.*, 895 F.3d 933, 939-40 (7th Cir. 2018) (holding that a "generalized motive common to all corporate executives is not enough to establish *scienter*").

Plaintiffs respond that in *Kohl's*, the plaintiffs pleaded prior accounting errors that were "dissimilar with the complained-of accounting error," while here, the SEC "fined Cboe millions of dollars for putting its business interests ahead of its regulatory obligations." Opp. 33-34 nn.24-25. This non-sequitur does not respond to the point that Plaintiffs improperly rely solely on Cboe's profit motive. Moreover, Plaintiffs are relying on allegations that Cboe was disciplined regarding an unrelated failure to enforce a different regulation in a separate matter having nothing to do with VIX derivatives. *See* Compl. ¶¶ 193-199. As in *Kohl's*, those two incidents are not "so alike as to make the recklessness inference at least as compelling as any other." 895 F.3d at 939.

Yet another flaw in Plaintiffs' argument is that they do not adequately allege the motives of any particular Cboe officer responsible for the alleged fraud. Under Seventh Circuit precedent, Plaintiffs must adequately allege the motive of a *particular* corporate official, rather than referring "generally to the collective knowledge of all the corporation's officers and employees acquired in the course of their employment." *Pugh v. Tribune Co.*, 521 F.3d 686, 697 (7th Cir. 2008). In the Court's prior order, the Court concluded that "it can be inferred that someone in Cboe's management knew about the manipulation and authorized the continued offering and advertising of the VIX." Court's Mem. Op. and Order granting Cboe's MTD, ECF No. 245 ("Op.") 21. But the Court also held that alleging mere knowledge of manipulation is insufficient to state a claim. Op. 21-22. As such, Plaintiffs bear the burden of pleading that *that person*—the individual in "Cboe's management [that allegedly] knew about the manipulation and authorized the continued offering and advertising of the VIX"—had the *intent to defraud*. Op. 21.

Plaintiffs seek to do so by relying on allegations that Cboe, the *company*, was reckless when it "changed the VIX formula" in 2003, which is outside the repose period, and during the repose period by refusing "to modify [the] calculation." Compl. ¶ 69. That is not enough. Plaintiffs must plead that a *person* who allegedly refused to modify the calculation within the repose period had the requisite scienter. Here, Plaintiffs say *nothing* showing that a Cboe officer responsible for the alleged fraud *in 2014* had any connection to the people who designed the SOQ *in 2003* or any other way of knowing about the alleged flaws in the VIX formula.

Plaintiffs refer to Cboe's argument on this point as a "flailing attempt around the Court's order." Opp. 30. It is not. Cboe is not quarreling with this Court's conclusion that Plaintiffs have pleaded that someone in Cboe management was aware of manipulation and authorized the continued offering and advertising of the VIX. Rather, Plaintiffs must plead that *the person in Cboe management who did that within the putative class period* was reckless. Under *Pugh*,

Plaintiffs cannot aggregate the state of mind of a Cboe officer who allegedly was aware of manipulation during the putative class period with the state of mind of a different hypothesized Cboe officer who was responsible for designing the VIX formula, and was aware of its alleged latent flaws. Plaintiffs bear the burden of pleading, with particularity, facts that raise a strong inference that the requisite scienter resides in at least one specific person at the company (even though they do not have to identify that person by name), and they provide no such allegations.

2. <u>Plaintiffs Have Not Plausibly Alleged Any Motive to Commit Fraud.</u>

Plaintiffs also have pleaded themselves out of court because their core theory—that Cboe knew that purported manipulation would be a side-effect of promoting legitimate "replication"—is legally insufficient to plead scienter and so implausible that it cannot state a claim.

a) Plaintiffs' "Replication" Theory Confirms That They Do Not Plead a Strong Inference of Scienter.

Plaintiffs and Cboe share important common ground. First, replication—"the ability to accumulate a portfolio of the components of an index in the same proportion that each component is represented in the index"—is "important, particularly for liquidity providers, because it allows for market participants to offset directional risk." Compl. ¶ 66. Second, under the pre-2003 formula for the VIX index, replication would have been effectively impossible. Compl. ¶ 67-68 ("If the original VIX formula were used for settlement of VIX products, liquidity providers would have found it very expensive, if not impossible, to reliably 'replicate' their [expiring] VIX risk . . . ."). Third, this would have provided a disincentive for trading in VIX derivatives. Compl. ¶ 66 (in a market that is "less liquid," "retail or other volatility market investors would be less inclined to trade in VIX products . . . ."). Fourth, Cboe's reason for increasing the number of SPX Options series that factored into the VIX, and using that expanded range for the SOQ, was to increase replicability. Compl. ¶ 71 ("CBOE made this change after consulting key market participants and being told that it needed to make the VIX 'replicable.'"). Fifth, Cboe's change accomplished the

desired result. *Id.* ("By basing the SOQ process on a maximum of 130 SPX Options series, CBOE greatly increased the ability of liquidity providers to replicate the settlement value."). Sixth, there is nothing wrong with changing the formula to facilitate replication. Opp. 20 ("[I]t is not Plaintiffs' position that enabling 'replication' is malfeasance in and of itself.").

Yet, Plaintiffs claim that because Cboe should have known that manipulation might occur as a side effect of replicability, Cboe committed securities fraud: "But where an exchange makes design choices knowing the resulting flaws would exponentially increase the chance of manipulation that *is fraud*." *Id.* Cboe denies that the ability to replicate makes manipulation more likely, *infra* at Part I.A.2.a, and also denies that Plaintiffs have pleaded that Cboe was reckless, *infra* at Part I.A.2.b. Regardless, making design choices for legitimate reasons—while *knowing* that these choices would "increase the chance" of manipulation by third parties—is *not* fraud. In fact, it not enough to plead aiding-and-abetting scienter. As this Court has noted, that standard provides that it is not enough that the defendant "knew of the principal's intent to violate the act." Op. 28-29. Rather, the plaintiff must plead that the defendant "intended to further that violation." *Id.*

To avoid this problem, Plaintiffs insist that they are not bringing an aiding-and-abetting claim, but are challenging what they characterize as "Cboe's own wrongdoing": Cboe allegedly "promoted, listed, and administered flawed products; expanded its product offerings; and on a daily basis refused to alter the SOQ process despite knowing of its fundamental flaws." Opp. 49. But those allegations share an important characteristic of aiding-and-abetting cases: the conduct that *harms* the defendant (here, the alleged manipulation) is done by a third party. Plaintiffs contend that Cboe's conduct *facilitated* that manipulation—similar to an aiding-and-abetting case. And it is a fundamental legal principle that a defendant is not liable based on mere knowledge of third party misconduct when the defendant did not intend that misconduct. That principle applies

whether Plaintiffs style the claim as one of primary or secondary liability.

It is no answer for Plaintiffs to emphasize that recklessness is sufficient to establish scienter under Rule 10b-5. Opp. 19-21. This case involves a unique type of scienter—scienter of manipulation *by third parties*. And in that context, as the Court has held, mere recklessness as to the prospect of third party misconduct is not enough. Op. 24. As a general matter, *knowledge*—a higher standard than recklessness—is a sufficient basis for pleading scienter. But the Court has already held that *the type of knowledge that Plaintiffs allege*—knowledge that other people are manipulating—is not enough. Op. 24 ("Cboe's knowledge of the Doe Defendants' manipulation is not enough to infer that Cboe acted with the requisite intent for its conduct.").

While Cboe disagrees with the holding in Plaintiffs' lead authority—*In re Barclays Liquidity Cross & High Frequency Trading Litigation*, 390 F. Supp. 3d 432 (S.D.N.Y. 2019)—the allegations in *Barclays* demonstrate why Plaintiffs have not shown scienter here. In that case, the exchanges allegedly *collaborated with* the manipulators—allegedly developing order types "for and at the behest of their preferred HFT customers." *Id.* at 451 (internal quotation marks omitted). And the exchanges allegedly *withheld information from others*: it is alleged that they "deliberately kept [investors] in the dark as to the existence and full functionality of one complex order type." *Id.* (internal quotation marks omitted). Those allegations are that the defendants were *advancing* manipulation, not that they merely could have predicted it. Here, there is no allegation of collaboration,[1] or that Cboe secretly fed any information to anyone. Rather, the allegation is that Cboe created the SOQ—based on a public formula—while allegedly aware that there was a chance

[1] Plaintiffs refer vaguely to "special privileges to select market participants" (Opp. 22), citing Paragraphs 14, 148, 317 of their Complaint. But Paragraphs 14 and 317 also are vague, and Paragraph 148 contains only a reference to "market makers" that "have preferential trading powers." But Plaintiffs do not allege that market makers are the manipulators and offer no argument as to how "steep discounts" are connected to the purported manipulation.

manipulators could take advantage of it. That is not securities fraud.

b) Plaintiffs' Scienter Case Is Illogical.

Even if Plaintiffs could plead scienter based on recklessness as to manipulators' actions, Plaintiffs' claim would fail because it is profoundly illogical and fundamentally implausible.

First: Plaintiffs' theory starts from the premise that Cboe expected manipulation to continue unabated. But *why*? Why would Cboe not instead exercise its regulatory authority in an effort to surveil for and prevent manipulation, so that it could profit from its "crown jewel"? Compl. ¶ 175; *see Bosco v. Serhant,* 836 F.2d 271, 279 (7th Cir. 1987) ("[I]t would be most unlikely for the Exchange to *want* to help a[n intermediary] defraud his customers, for scandals such as [a fraud] can only hurt the Exchange."). Plaintiffs' response is that the "risk of discovery of manipulation was low" because Cboe could not have anticipated that others would be able to unmask the fraud. Opp. 32. But this does not explain why Cboe would have run *any* risk of discovery, rather than police alleged manipulation. Crucially, Plaintiffs do not allege that Cboe benefited from *manipulation* in some special way other than the benefit Cboe would receive from other trades. The Court identified this same defect in its prior order: "Though the VIX franchise was an important source of profit for Cboe, the manipulation itself was not. Plaintiffs have not alleged that Cboe benefitted in any additional way by attracting the business of market makers." Op. 22.

Plaintiffs resist the premise of the Court's ruling: "under this logic, no exchange could ever be shown to have had an improper motive—trading volume is, of course, how exchanges make money." Opp. 32. Plaintiffs are wrong. There are *many* ways of showing an improper motive. Plaintiffs could plead that Cboe insiders personally traded and benefited from manipulation. Or they could plead that Cboe actually was collaborating with the manipulators. None of these allegations are pleaded.

Another problem with Plaintiffs' claim is that the aspect of the VIX that allegedly made it prone to manipulation—the use of a large number of securities—was the *very feature of the VIX* that led Cboe's two regulators to conclude that it *would not be* prone to manipulation. This bears repeating: The CFTC and SEC jointly concluded that VIX Futures "should not be readily susceptible to manipulation" on the ground that the VIX Index was *not* a "narrow-based security index," *i.e.*, an index based on a small number of component securities. *See* Joint Order Excluding Indexes Comprised of Certain Index Options From the Definition of Narrow-Based Security Index Pursuant to Section 1a(25)(B)(vi) of the Commodity Exchange Act and Section 3(a)(55)(C)(vi) of the Securities Exchange Act of 1934, 69 Fed. Reg. 16900-01 & n.7 (Mar. 31, 2004). Plaintiffs cannot seriously claim a "strong," or even plausible, inference that Cboe performed an incredible feat: using a formula with a feature that presents allegedly blatant risks of manipulation, presenting the allegedly risky feature of the formula to two regulators, arguing that the feature actually made it not risky, and then winning regulatory approval.

Yet another problem for Plaintiffs: The design of the SOQ is publicly available. Plaintiffs quote it in the complaint. Compl. ¶ 86. Unlike in *Barclays*, on which Plaintiffs rely heavily (*supra* at Part I.A.2.a), Plaintiffs do not suggest that Cboe passed any secret information to the alleged manipulators. Thus, Plaintiffs' claim requires believing that: (1) would-be manipulators would detect the potential for manipulation in the SOQ's public design, and therefore come to Cboe's exchange in droves, thus allowing Cboe to earn profit from trading fees while Cboe turned a blind eye to manipulation, but (2) other would-be market participants would not detect the potential for manipulation in the same public information, and therefore would *also* come to Cboe's exchange in droves to serve as the unwitting victims of the alleged manipulation.

Plaintiffs do not dispute that their theory depends on this implausible premise. Rather, they assert that the complaint pleads facts that allowed Cboe "to pull off the supposedly 'impossible'

feat." Opp. 33. And what are those facts? Data in "extensive allegations demonstrating the existence of manipulation," plus "no public suggestion that such manipulation was occurring for more than a decade after data suggests such manipulation began." *Id.* Thus, Plaintiffs' response to Cboe's showing that Plaintiffs' claim depends on a remarkably unlikely set of inferences boils down to: "Our experts' models show there was manipulation, so Cboe must have been reckless about it." This is not enough to plead scienter.

c) Plaintiffs' Additional Scattershot Allegations Do Not Assist Their Case.

Plaintiffs argue that "Cboe was monitoring the data coming from the products it designed and administered, and thus knew immediately and intimately" of alleged manipulation. Opp. 23. However, Plaintiffs offer no particularized allegations that anyone *at Cboe* knew anything. Rather, they proffer aggregate data from multiple models invented for this litigation that are supposedly consistent with manipulation, and then speculate that because Cboe had access to data, it *must* have known something was going on. This is not particularized evidence of Cboe's scienter.

Plaintiffs also argue that "Cboe itself used similar data patterns in other contexts to conclude manipulation had taken place." Opp. 24. Again: If Cboe were conducting a multi-year conspiracy to conceal manipulation, why risk exposing it in disciplinary actions? The stronger inference is that Cboe took action when it saw misconduct, and that it did not see it here.

Plaintiffs claim that "Cboe benefitted from a 753% increase in fees during the SOQ window by using the changed formula." Compl. ¶¶ 153-156 (emphasis omitted). Plaintiffs admit that this calculation compares actual fees earned to a projection of what Cboe allegedly would have earned if trading from 2007 to 2018 had been based on the *pre-2003* formula (when trading in VIX derivatives did not exist). Opp. 26-27. But Plaintiffs' comparison ignores the underpinning of their case—that Cboe changed the VIX formula because derivatives would not have been replicable under the pre-2003 formula and therefore would not have been a viable product. Compl.

¶ 68. So Plaintiffs' claim about increased fees boils down to this: Cboe committed fraud because it is making more money with the current VIX formula than with a different formula under which trading VIX derivatives would have been effectively impossible.

Equally unpersuasive is Plaintiffs' theory that on days when there was a higher degree of "deviation"—the difference between the VIX value resulting from the SOQ process and the level of the spot VIX index upon market opening, Compl. ¶ 146 n.39—there was a higher trade volume, and hence more profits for Cboe. Compl. ¶¶ 157-159. Plaintiffs' allegations amount to nothing more than the unremarkable proposition that when there were more trades, Cboe made more money. Plaintiffs do not offer a clear explanation of why this shows scienter.

Plaintiffs also make the puzzling assertion that Cboe was *publicly* touting a trading opportunity arising from the difference between the SOQ settlement price and the prices for SPX Options at the open of trading after the SOQ, Compl. ¶¶ 164-166, and that this is somehow additional evidence of scienter. Opp. 28-29. If Cboe were hiding manipulation, why would it publicly tout the very price differences that Plaintiffs claim are the smoking gun of manipulation? The far stronger inference is that Cboe was not hiding anything.

The remaining allegations are examples of Plaintiffs' style of attributing malice to anything Cboe does or does not do. When Cboe *does* police manipulation, this shows scienter because it shows Cboe's awareness. Opp. 24 ("Cboe itself used similar data patterns in other contexts to conclude manipulation had taken place"). But when Cboe *does not* police manipulation, this is part of the plan to keep it under wraps. Opp. 32 (the "risk of discovery of manipulation was low because Cboe . . . did not mount enforcement actions"). When Cboe *does* change its settlement rules, this is a sign that Cboe knew of those rules' defects. Opp. 31 (the fact that Cboe took steps to alter the SOQ "confirm[s]" that Cboe previously took the concept of replication to "reckless extremes"). When Cboe *does not* change its settlement rules, it is to preserve its illicit profits.

Opp. 49 (Cboe "on a daily basis refused to alter the SOQ process despite knowing of its fundamental flaws"). Cboe's restriction of access to relevant data is a sign of fraud, Opp. 22-23, but so is Cboe's publication of data demonstrating spreads between the spot VIX and settlement values, Opp. 28-29. When everything is a sign of fraud, nothing is. Plaintiffs have not pleaded a strong inference of scienter.

B. Plaintiffs Fail to Plausibly Allege Loss Causation.

The Court should adhere to its prior decision that Plaintiffs have not pleaded loss causation.

1. Plaintiffs' "Appendix" Is Improper.

The Court's prior order explains that to state a claim, Plaintiffs must plead two pieces of information. Plaintiffs "must identify both sides of a transaction to show that they suffered a loss," Op. 18, and must identify the *direction* of manipulation. "To plead loss causation, plaintiffs must identify specific transactions where they lost money, either because they experienced a net loss or because they made less than they would have absent manipulation." Opp. 18-19. As Cboe's motion explained, the complaint is deficient on both scores. MTD 31-33, 36-38.

Plaintiffs respond by attaching a 36-page "appendix" containing extensive allegations that do not appear in the complaint. The appendix is improper and the Court should disregard it. "It is a basic principle that the complaint may not be amended by the briefs in opposition to a motion to dismiss." *Agnew v. NCAA*, 683 F.3d 328, 348 (7th Cir. 2012) (internal quotation marks and alteration omitted). Plaintiffs' "appendix" is a backdoor attempt to amend the complaint and an implicit admission of the pleading defects Cboe identified.

Because Plaintiffs have already filed one amended complaint, Plaintiffs require leave of court to file a second amended complaint. *See id.*; Fed. R. Civ. P. 15(a). It is far from clear that the Court would grant the motion. Although "[t]he court should freely give leave when justice so requires," Fed. R. Civ. P. 15(a)(2), this case is extraordinary: the Court specifically identified the

information that Plaintiffs had to include in their complaint in its prior order, and Plaintiffs inexplicably declined to include the information the Court stated was required. The Court should therefore disregard the appendix and dismiss the complaint.

2. Plaintiffs Fail to Plead Loss Causation for Persons Who Held VIX Options to Settlement.

In any event, the new allegations in the appendix fail to plead loss causation.

a) Plaintiffs Fail to Plausibly Plead Loss Causation for Any Person who Held VIX Options to Settlement.

With respect to persons who held VIX Options to settlement, Plaintiffs' loss causation theory has two premises. The first premise: When the settlement value for VIX derivatives generated by the SOQ deviates from the next opening spot VIX index value by an unknown amount (either up or down) that Plaintiffs deem sufficient, this means that the settlement value was manipulated. Compl. ¶ 73 ("The deviation, which is calculated as the difference between the settlement price of VIX and the opening price of VIX just seconds later, is a measure of the artificiality of the VIX settlement.").

But this information, alone, is not enough to plead loss causation, even for a person who held a derivative to settlement in a purportedly manipulated SOQ. This is so because the mere showing of a *differential* between the settlement value and the spot VIX does not show whether the settlement value, or the spot VIX value, is an accurate estimate of expected volatility. Moreover, even if the settlement value were manipulated, under Plaintiffs' "lasting-impact" theory the alleged SOQ manipulation also may have affected the amount previously paid to enter the position on a non-settlement day—yielding no net harm. Op. 18 ("Inflated prices do not harm buyers unless there is a subsequent price drop, so trading at an inflated price does not necessarily result in a loss.").

To avoid these problems, Plaintiffs must adopt a second premise: that the spot VIX is the gold standard and does not reflect manipulation. Plaintiffs are extremely clear about this: "by definition, under the presumption that a manipulated SOQ only impacts that SOQ, it is not possible for a Plaintiff's instrument to be impacted at any other time other than the date of settlement." Opp. 37. Taking these two premises together, Plaintiffs theorize that anyone who holds a position in the opposite direction from the purported manipulation during the SOQ has pleaded loss causation arising from the purported manipulation.

As shown below, Plaintiffs have not *plausibly* pleaded either premise.

(i) Plaintiffs Fail to Plausibly Plead Losses from Alleged Manipulation by Merely Alleging a Difference Between the Settlement Value and the Spot VIX Index.

The inputs used to calculate the spot VIX index *differ* from the inputs used to calculate the SOQ: "the intraday VIX is derived from the midpoint of bid and ask premiums of SPX Options, whereas the settlement calculations use actual traded prices where possible." Compl. ¶ 57 n.6. So it should not be a surprise if the outputs are different. The inputs are different due to a dynamic common to all markets: the price at which a market participant initially offers to buy or sell a product—here the midpoint of the bid and ask for SPX Options used to calculate the spot VIX—often differs from the price upon which a buyer and a seller ultimately agree—here the actual prices for SPX Options traded during the SOQ, which are used to calculate the settlement value. Plaintiffs claim that "the formula to calculate both the spot VIX index and the SOQ are identical[.]" Opp. 27. But different inputs into the VIX formula produce different outputs.

Moreover, this difference is not a hidden feature of the VIX. Cboe publishes the formula and inputs for the spot VIX and the SOQ. Anyone who has ever bought any VIX derivative and holds it to settlement is on notice that the values can and do differ. Anyone who has participated in multiple settlements will notice that the amount of the difference varies between settlements.

And, Plaintiffs do not identify how any particular settlement was "manipulated" by any particular mechanism. They hypothesize two general possible mechanisms, *see* Compl. ¶¶ 76-82 ("banging the close"), ¶¶ 83-89 (manipulating the two-zero bid rule), without taking any firm position on which was employed and when. They simply suggest that "deviations" must mean manipulation, somehow by some means.

Thus, this is a classic case for the application of *Twombly*. *Twombly* holds that there is a "need at the pleading stage for allegations plausibly suggesting (not merely consistent with)" liability. *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 557 (2007). At best, Plaintiffs' allegations that they held derivatives on days where there was a "deviation" is "consistent with" liability. But it does not plausibly *suggest* liability. The fact that a formula, calculated with different inputs, produces different outputs, does not *plausibly suggest* that any traders participating in such SOQs are the victims of manipulation.

(ii) Plaintiffs Fail to Plausibly Plead Loss Causation Because They Impermissibly Allege that the Spot VIX Value Reflects Manipulation and Does Not Reflect Manipulation.

As to Plaintiffs' second premise, that the spot VIX is the gold standard, the problem with Plaintiffs' case is that they adopt the opposite premise with regard to the VIX derivatives not held to settlement. *See* MTD 35-36. Plaintiffs maintain that they have pleaded loss causation for claims involving securities held to settlement, *precisely because* of their premise that the spot VIX was the gold standard. But the same Plaintiffs simultaneously argue that the spot VIX *was* manipulated for purposes of their own claims regarding VIX derivatives not held to settlement. *Id*.

Plaintiffs do not dispute that their arguments contradict. Instead they characterize them as "allegations made in the alternative." Opp. 43-44. Plaintiffs cannot defend their claim on this ground. Plaintiffs can make alternative *arguments*, but they cannot pursue a single claim premised

on the assertion that the same fact is simultaneously true and untrue. *See Allied Vision Grp., Inc. v. RLI Prof'l Techs., Inc.*, 916 F. Supp. 778, 782 (N.D. Ill. 1996) ("Rule 8(e)(2) allows inconsistency between claims, not inconsistency within a single . . . claim."). That is exactly what Plaintiffs attempt here: They bring a single Rule 10b-5 claim, in which Plaintiffs seek to recover the *sum* of damages incurred from alleged manipulation of the spot VIX and alleged manipulation of the VIX SOQ, which requires that the spot VIX both was affected by manipulation and was not affected by manipulation. Plaintiffs may not legally do that.

b) At a Minimum, Plaintiffs Lack Standing to Pursue Claims on Behalf of Putative Class Members Who Traded on Unidentified Settlement Days.

At a minimum, if the Court permits Plaintiffs to amend their complaint via their "appendix," it should hold that those new allegations constrain the scope of Plaintiffs' claims—which would require narrowing them considerably. Plaintiffs' appendix identifies only nineteen settlement days that were purportedly tainted by manipulation, nine of which are in 2012 and 2013, outside the statute of repose. Yet the putative class includes, among others, *anyone* who held *any* VIX derivative to settlement on *any* settlement day during the putative class period. Compl. ¶¶ 303-310. The complaint should be dismissed with respect to anyone other than the named plaintiffs and putative class members who have properly pleaded loss causation—that is, people who held derivatives in the opposite direction from the alleged manipulation on the particular settlement days identified in the appendix.

This is a pleading issue. In *Retirement Board of the Policemen's Annuity & Benefit Fund v. Bank of New York Mellon*, 775 F.3d 154 (2d Cir. 2014), the Second Circuit held that a plaintiff filing a class complaint must show class standing at the motion to dismiss stage. This requires a showing that "the named plaintiff may properly assert claims" on behalf of absent class members—which is "distinct from the criteria that govern whether a named plaintiff is an adequate class representative under Rule 23(a)." *Id.* at 161. The plaintiffs had invested in certain trusts in

which the defendant bank was the trustee; they sought to assert class claims on behalf of absent class members who had invested in different trusts. The court held that the plaintiffs lacked standing because the bank's "alleged misconduct must be proved loan-by-loan and trust-by-trust." *Id.* at 162. The court rejected the plaintiffs' argument that they could use "statistical sampling to show that loans in all of the trusts were defective." *Id.* It reasoned that the plaintiffs may have had a personal interest in proving fraud in connection with *their* trusts; but they lacked a "personal stake" in proving fraud with respect to the *other* trusts. *See id.* at 162-63.

Identical reasoning applies here. Every settlement day involves the settlement of different securities—VIX Options that expire on different days and whose value is based on the expected volatility of the S&P 500 over different time periods. Plaintiffs do not even attempt to plead loss causation for more than a handful of settlement days. Therefore, regardless of the allegations' sufficiency, Plaintiffs lack standing to represent absent putative class members who transacted in different securities—VIX Options with different expirations—that settled on different days.

3. Plaintiffs Fail to Plead Loss Causation for Persons Who Bought VIX Options, But Did Not Hold Them To Settlement.

Plaintiffs include within the putative class persons who traded in VIX Options but did *not* hold them to settlement, as well as persons who traded in SPX Options—which *never* settle using the VIX SOQ. The Court has already held that these claims failed to plead loss causation: "[T]o the extent any plaintiff class members did not hold their options through settlement, their loss is even less directly linked to the SOQ manipulation, and plaintiffs have not alleged loss causation as required to state a claim." Op. 19. The Court should adhere to that conclusion.

a) Plaintiffs' Claim Should Be Dismissed With Respect to All Persons Who Did Not Hold VIX Options To Settlement.

In *Harry v. Total Gas & Power North America, Inc.*, 889 F.3d 104 (2d Cir. 2018), the court addressed a manipulation claim where, as here, the plaintiffs alleged that manipulation of one

contract affected prices for a different contract where there was no formal rule-based price linkage between the contracts. The court held that the plaintiff must show a "tangible mechanism whereby a defendant's trading affects [the plaintiff] more than marginally." *Id.* at 113.

Here, Plaintiffs have identified no such tangible mechanism. Plaintiffs allege that "the prices of VIX Options . . . move similarly across tenors in response to movements in the VIX itself." Compl. ¶ 268. Of course, as noted above, the starting premise of Plaintiffs' own loss-causation theory with respect to derivatives held to *settlement* is that the spot "VIX itself" *is not* the product of manipulation. That contradiction alone requires dismissal of Plaintiffs' claim.

Separately, Plaintiffs have not explained how movements in the spot VIX itself that allegedly caused a loss resulted from prior manipulation in the SOQ. Plaintiffs cite the "efficient market hypothesis," in which "information remains 'baked into' the price," such that "securities claims are accordingly not limited to purchases and sales made in the exact minute a misleading statement is made, but rather are routinely allowed for transactions occurring long after." Opp. 41. Plaintiffs explain: "trades convey information that is incorporated into prices going forward." *Id.* But this theory misunderstands how VIX Options work.

Obviously, the price of *a security* will "bake in" public information about *that same security*, and trading on a security at an earlier time may affect the price of *that security* at a later time. However, here Plaintiffs are making the very different argument that the settlement price of one security (a VIX Option expiring on one date) affects the price of a different security (a VIX Option expiring on a different date). Plaintiffs do not explain why that would be, and it is not obvious. In any SOQ, the settlement value for the expiring VIX Options is based on the expected volatility of the S&P 500 over the next 30 days. Compl. ¶¶ 49, 51. Those VIX Options go away after settlement. Different VIX Options are traded after that SOQ, which expire in later weeks or months and derive their value from the expected volatility of the S&P 500 over different time

periods. Information about the settlement price for a security reflecting expected volatility over one time period cannot be asserted to affect the price of a different security priced on the expected volatility over a different time period. Merely adverting to the fact that markets are "efficient" is insufficient to overcome a motion to dismiss.

b) At a Minimum, Plaintiffs' Claim Should Be Dismissed With Respect To Persons and Putative Class Members Who Have Not Pleaded Loss Causation.

As Cboe's motion explained, with respect to any holder of VIX Options who did not hold an option to settlement, the complaint plainly did not include the specific information that this Court held was necessary to allege loss causation. MTD 36-38.

Plaintiffs seek to rectify that pleading defect via their appendix. But most of the allegations in the appendix do not comply with this Court's instructions in its prior order. The Court held that Plaintiffs "must identify both sides of a transaction to show that they suffered a loss." Op. 18. This is because "[i]nflated prices do not harm buyers unless there is a subsequent price drop, so trading at an inflated price does not necessarily result in a loss." *Id.* This reasoning plainly applies to Plaintiffs' "lasting-impact" claims, in which both the opening and the closing of a position may have been tainted by the purported "lasting impact" of alleged manipulation in the SOQ. Yet most allegations in the appendix do not identify both sides of the transaction; they simply state the price at which the plaintiff exited the position. *See*, *e.g.*, Appendix-1 ("*January 31, 2014* refers to sales of 170 VIX call options expiring on February 19, 2014, with a strike price of 17, which were adversely impacted when the lasting impact of manipulation suppressed the VIX as of that day").

Yet Plaintiffs seek to assert class claims on behalf of *anyone* who held *any* VIX derivative position at *any* time. As explained above, Plaintiffs lack class standing to assert claims on behalf of holders of securities positions who do not plead loss causation. Thus, at a minimum, the

complaint should be dismissed with respect to claims of any persons who held positions in securities other than those for which the appendix identifies both sides of the transaction.[2]

4. Plaintiffs Fail to Plead Loss Causation for Persons Who Bought SPX Options.

The complaint should be dismissed with respect to persons who traded in SPX options because Plaintiffs have not offered any plausible account of how alleged manipulation in the VIX SOQ could have harmed them. Plaintiffs assert: "Given it generally holds true that the price of an option will increase/decrease when the implied volatility of the underlying asset increases/decreases, and given the VIX is a measurement of the implied volatility of SPX Options, anyone who traded in SPX Options will also have been harmed by movement of the VIX." Compl. ¶ 268. This makes little sense. Why would alleged artificiality in a one-hour settlement window, at most once a week, in a single VIX derivatives expiration, perpetually harm everyone who traded in SPX Options, which never settle using the VIX SOQ, at all other times?

Plaintiffs never answer this question; they simply advert to the "natural relationship between these products." Opp. 43. But the "relationship" is that the VIX is a measure of expected volatility, calculated using the price of SPX Options. Plaintiffs do not explain how alleged manipulation in the settlement process for VIX derivatives could possibly have harmed persons who transacted in SPX Options, the prices of which are inputs into, not derived from, the value of VIX derivatives.

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[2] To be clear, Cboe believes the complaint should be dismissed in its entirety. However, if the Court disagrees, it should direct Plaintiffs to file an amended complaint that includes the subset of the transactions from the appendix in which both sides are identified, and putative class claims no broader than that. Cboe should also have the right to file a new motion to dismiss.

C. Plaintiffs Plead No Non-Immune Conduct Within the Statute of Repose.

Plaintiffs cannot withstand a motion to dismiss unless they can plead that Cboe engaged in fraudulent conduct that violates Rule 10b-5, is within the statute of repose, and is not regulatory conduct for which Cboe is immune from liability. Plaintiffs cannot rely on the design of the VIX, which occurred well before the repose period (and which was approved by the CFTC and SEC); nor can they rely on Cboe's failure to enforce its rules, which is subject to regulatory immunity. MTD 40-41. They have not identified any non-immune conduct occurring within the repose period.

Plaintiffs cast this argument as an effort to relitigate the Court's prior order. Opp. 49. It is not. Plaintiffs have filed a new complaint which adopts a new theory: that in 2003, Cboe realized that the prior VIX formula could not be replicated, so Cboe devised a new formula to facilitate replication and promote liquidity. But that theory turns on events outside the repose period.

And within the repose period, Plaintiffs can muster allegations only that Cboe continued to offer VIX derivatives, failed to change the SOQ, and published prices. Opp. 49. These are classic aiding-and-abetting allegations, and the Supreme Court has ruled that only the SEC—not private plaintiffs—can bring claims for aiding and abetting violations of the securities laws. *Stoneridge Inv. Partners, LLC v. Sci.-Atl., Inc.*, 552 U.S. 148, 163 (2008). To redefine Cboe's actions within the repose period as fraud would abolish that rule. *Id.* at 162-63.

II. Plaintiffs' CEA Claims Should Be Dismissed.

As the Court previously held, Plaintiffs have failed adequately to plead loss causation under the CEA. In addition, Plaintiffs have not adequately pleaded bad faith or secondary liability.

A. Plaintiffs' Failure-to-Enforce Claim Should Be Dismissed Because Plaintiffs Have Not Shown Actual Losses Caused by Cboe's Alleged Failure to Enforce.

The CEA provides that a "registered entity that fails to enforce any bylaw, rule, regulation, or resolution" "shall be liable for actual damages sustained by a person who engaged in any

transaction" "to the extent of such person's actual losses that resulted from such transaction and were caused by such failure to enforce or enforcement of such bylaws, rules, regulations, or resolutions." 7 U.S.C. § 25(b)(1). Plaintiffs have neither pleaded "actual losses that resulted from such transactions," nor that any losses were "caused by such failure to enforce[.]"

1. Plaintiffs Have Not Alleged "Actual Losses" That "Resulted From Such Transaction."

For the reasons stated above with respect to VIX Options, Plaintiffs have not adequately pleaded loss causation. *Supra* at Part I.B.2.a. As also is explained above, Plaintiffs' "appendix" should be stricken. *Supra* at Part I.B.1. Even if those allegations were considered, Plaintiffs have failed to plead actual losses either with respect to Plaintiffs who held VIX Futures to settlement, or with respect to Plaintiffs who did not hold VIX Futures to settlement. At a minimum, Plaintiffs lack class standing to plead claims on behalf of those who transacted in VIX Futures for whom Plaintiffs have not pleaded loss causation. *Supra* at Part I.B.2.b.

Plaintiffs respond that relevant authority holds that they need not plead *anything* about loss causation. Opp. 51-53. Plaintiffs mischaracterize those holdings. Courts have stated that "loss causation principles were not applicable to a CEA claim involving a manipulative 'bang the close' trading strategy" based on an assumption that "once the manipulation ceases, the price of the derivative will gradually return to its actual value," making it "permissible to infer that the artificial inflation will inevitably dissipate." *In re Crude Oil Commodity Futures Litig.*, 913 F. Supp. 2d 41, 60 (S.D.N.Y. 2012) (citation omitted); *see also Kohen v. Pac. Inv. Mgmt. Co.*, 244 F.R.D. 469, 475 (N.D. Ill. 2007) (similar), *aff'd*, 571 F.3d 672 (7th Cir. 2009). However, the basis of Plaintiffs' complaint is contrary to the assumption underpinning the reasoning in those cases. Plaintiffs allege that manipulation in the SOQ had lingering effects that continued indefinitely, thus opening the door to include every person who traded in a VIX derivative over a decade-plus stretch in the putative class. They cannot do so without pleading actual losses. As the Court stated with respect

to the CEA claim: "Without identifying both sides of a transaction, plaintiffs have not shown they lost money and have not plausibly alleged they suffered actual damages. Because plaintiffs do not assert that the market was constantly suppressed or inflated, their general allegations that they must have been harmed at some point are insufficient to state a claim." Op. 28. The CEA claims should be dismissed.

2. Plaintiffs Have Not Alleged "Actual Losses" That Were "Caused by Such Failure to Enforce."

Even if Plaintiffs had pleaded losses from *manipulation*, they have not pleaded the CEA's distinct requirement that the losses must have been "caused by such failure to enforce" a rule. The problem for Plaintiffs is that an "inescapable rule of causality is that a cause must precede its effect." *Troyer v. Nat'l Futures Ass'n*, No. 1:16-cv-00146-SLC, 2019 WL 4695524, at *17 (N.D. Ind. Sept. 26, 2019) (citation omitted). Thus, Plaintiffs must plead that the *cause*—"such failure to enforce"—precedes the effect—their injury. But Plaintiffs do not plausibly plead that any failure to enforce that *preceded* their alleged losses could have caused those losses. MTD 46-49. For instance, Plaintiffs do not plausibly plead that any enforcement action against any particular manipulator would have prevented that manipulator from engaging in a subsequent act of manipulation that harmed Plaintiffs.

In response, Plaintiffs claim: (1) "a demonstrably strong regulatory regime would have helped prevent manipulation in the first place," and (2) "an honest Cboe would not have forced traders to settle based on calculations it knew to be rigged." Opp. 53. As to the latter, Plaintiffs appear to be arguing that Cboe should be liable under the CEA based on the allegedly flawed design of the SOQ. But that is not a permissible basis for CEA liability; Plaintiffs must trace liability to Cboe's alleged *failure to enforce anti-manipulation rules*, not the SOQ's design.

As to the former: Plaintiffs' theory appears to be that if Cboe had adopted a generally more aggressive enforcement regime, and enforced its anti-manipulation rules against certain

hypothetical John Doe manipulators, those other hypothetical enforcement actions would have been successful and deterred possibly different John Doe manipulators from harming Plaintiffs. This theory is far too speculative to withstand a motion to dismiss.

Plaintiffs also assert: "Cboe's approach would effectively nullify the CEA's private right of action, as it is obviously true of any manipulation that discrete disciplinary actions come after the manipulative trades." Opp. 54. Not so. CEA's private right of action is designed for cases where the plaintiff can trace an injury to a prior failure to enforce. In *Bosco*, for instance, a fraudster had tricked the plaintiffs into continuing to invest in his fraudulent scheme by omitting "customer designations" on trades and thereby obscuring the plaintiffs' ongoing losses. 836 F.2d at 273-74. The plaintiffs sued the exchange, arguing that if the exchange had enforced its rule requiring customer designations for the fraudster's trades, the fraud could not have continued and their losses would have been averted. *Id.* at 277. In that scenario, the plaintiffs' theory was that the enforcement of the rule would have prevented the harm from coming about. Likewise, in *Troyer v. National Futures Ass'n*, 290 F. Supp. 3d 874 (N.D. Ind. 2018), the court considered a Section 22(b) claim based on the defendant's alleged failure to enforce its membership criteria with respect to a specific individual; the allegation was that had the rule been enforced, the individual would have been prevented from soliciting funds and therefore could not have defrauded the plaintiff of the specific sum that the plaintiff invested with him. *Id.* at 881-83. Cboe's point is not that "certain fact patterns are the only way to plead harm," Opp. 54 n.53. Cboe's point is that the CEA requires that the failure to enforce a rule cause the harm. Plaintiffs have not adequately pleaded this element.

Moreover, Plaintiffs' allegations are insufficient to plead proximate cause, as required by the CEA, and in virtually every other area of law. *See In re Foreign Exch. Benchmark Rates Antitrust Litig.*, No. 13-cv-7789, 2016 WL 5108131, at *21 (S.D.N.Y. Sept. 20, 2016); *Hemi Grp.*,

LLC v. City of N.Y., 559 U.S. 1, 10 (2010). Plaintiffs' claim is that Cboe allegedly could have indirectly caused the alleged manipulators to act differently by taking unspecified disciplinary actions at an unspecified earlier time against unspecified and possibly different manipulators. This connection between the alleged failure to enforce and the alleged harm is too attenuated to support liability. Plaintiffs respond that "price artificiality" is "intimately intertwined with Cboe's acts and omissions as the creators and maintainers of the VIX franchise." Opp. 55. This is an argument that *the allegedly defective design of the SOQ* proximately caused harm. But that conduct cannot be the basis for a Section 22(b) claim, which permits liability based on an exchange's *failure to enforce rules in their capacity as regulators*. Thus, Plaintiffs must show a proximate link between Cboe's *failure to enforce anti-manipulation rules* and Plaintiffs' injury. They have not.[3]

B. Plaintiffs' Failure-to-Enforce Claim Should Be Dismissed Because Plaintiffs Do Not Adequately Allege Bad Faith.

The Court held that Plaintiffs' prior complaint adequately pleaded bad faith. But Plaintiffs have submitted a new complaint, and it must be analyzed on its own terms. Plaintiffs' new complaint introduces a new theory of the case: even if the SOQ was intended to, and did, promote replication and hence liquidity, Cboe's alleged expectation that the SOQ would also facilitate alleged manipulation is sufficient to establish liability. As explained above, this new theory is insufficient to plead scienter under Rule 10b-5. *Supra* at Part I.A. And this new theory also demonstrates that Cboe did not exhibit "bad faith" within the meaning of the CEA.

The Court previously concluded that, based on the allegations in the prior complaint, "Cboe points to nothing in the text of Rules 601 or 603, or elsewhere, showing that their enforcement is discretionary[.]" Op. 27. The separate issue raised by Plaintiffs' new allegations is whether, in

[3] Plaintiffs' failure-to-enforce claim with respect to all Cboe Defendants except Cboe Futures should also be dismissed on the ground that those Cboe Defendants are not "registered entit[ies]" under 7 U.S.C. § 25(b). *See* MTD 43 n.7.

applying those anti-manipulation rules to SOQ market activity, Cboe must exercise discretion to determine if there is legitimate trading that explains the observed activity. As Plaintiffs acknowledge, there is a legitimate motive for trading in out-of-the-money options during the SOQ: replication. So to initiate an enforcement action, Cboe must distinguish legitimate trades from allegedly manipulative trades—a difficult analysis that cannot be done mechanically. This requires *discretion*—and so the CEA's ordinary bad-faith standard applies. MTD 49-53.

Plaintiffs accuse Cboe of relitigating an issue that was resolved in the Court's prior order. Opp. 55-57. That is incorrect. Plaintiffs have reformulated their case, and must therefore show that *their new allegations* withstand the applicable pleading standing. Plaintiffs' allegations, however, leave no doubt that the application of Cboe's anti-manipulation rules requires discretion.

Plaintiffs have not pleaded such bad faith. Plaintiffs assert that the CEA does not encompass the PSLRA's "strong inference" requirement. Opp. 58. That is true, but the *substantive* standard for scienter under the CEA is higher than under the securities laws: Recklessness is sufficient to establish liability under Rule 10b-5, whereas for purposes of the CEA, Plaintiffs must plead that Cboe "deliberately closed its eyes so that it would not discover what it strongly suspected was going on." *Bosco*, 836 F.2d at 276. The complaint contains no well-pleaded allegations that Cboe "deliberately closed its eyes."

Moreover, Plaintiffs have not pleaded an ulterior motive. Plaintiffs confirm that their sole "ulterior motive" was the alleged desire to profit from trading in VIX derivatives. Opp. 58. This is not enough to establish an "ulterior motive" under the CEA. *See Brawer v. Options Clearing Corp.*, 807 F.2d 297, 303 (2d Cir. 1986).

C. Plaintiffs' Secondary Liability Claims Should Be Dismissed.

Plaintiffs' aiding-and-abetting claims against Cboe Options and Cboe Global should be dismissed. The Complaint alleges that Cboe Options and Cboe Global aided and abetted the *third*

party manipulators. Compl. ¶ 367. Cboe's motion to dismiss pointed out that this claim was not adequately pleaded. MTD at 53-54. Plaintiffs do not dispute this point, and now assert, without citation to the complaint, that Cboe Options and Cboe Global aided and abetted *Cboe Futures*. Opp. 59. In addition to being a new allegation not appearing in the complaint, this allegation is not adequately pleaded. Plaintiffs' vague assertion that "Cboe was acting as an integrated whole" (Opp. 59) does not adequately plead that Cboe Options (a securities exchange) or Cboe Global (a holding company) did *anything* to further violations on a separate futures exchange, much less *intended* to further Cboe Futures' alleged CEA violations. *See* Op. 29.

Plaintiffs' principal-agent claim should be dismissed as well. The complaint contains pure boilerplate, alleging that all defendants are liable "for the manipulative acts of their agents or representatives (including both corporate and natural persons) as well as any persons acting for them in the scope of their employment." Compl. ¶ 363. Plaintiffs' brief is no better; it simply says that "all the Cboe defendants were each other's agents" and "Cboe entities are each responsible for the actions of their own employees." Opp. 59. These vague statements do not provide sufficient notice to Cboe as to who is being accused of being an agent of who, and why.

III. Plaintiffs Have Not Pleaded Manipulation At All.

Finally, Plaintiffs have not adequately alleged that *anyone* manipulated the market—which necessarily forecloses Plaintiffs' claim that Cboe facilitated that manipulation.

Plaintiffs do not dispute that they must plead manipulation with particularity—that is, they must plead "the 'who, what, when, where, and how' of the fraud." *Pirelli Armstrong Tire Corp. Retiree Med. Benefits Trust v. Walgreen Co.*, 631 F.3d 436, 441-42 (7th Cir. 2011) (citation omitted). Plaintiffs claim they have satisfied these requirements because they have pleaded that "the VIX settlement price that was manipulated (the 'what') during the SOQ process (the 'when') through numerous flaws in Cboe's design of the SOQ, including 'banging the close,' abuse of the

'two-zero bid rule,' and other methods (the 'how')[.]" Opp. 14-15. None of these allegations is sufficient. First, Plaintiffs do not allege who the manipulators are, even generally or by category. Plaintiffs offer general descriptions of Lead Market Makers and Designated Primary Market Makers, Compl. ¶¶ 59-63, without identifying whether the John Doe manipulators fall into either category. Second, Plaintiffs' phrase "during the SOQ process" overlooks that there have been hundreds of "SOQ process[es]," and suggesting that manipulation occurred at some point during an unspecified SOQ process does not plead "the 'when.'" Similarly, speculating on two *possible* methods, plus unspecified "other methods," does not specify the "how" with particularity.

Plaintiffs allege that statistical evidence of an "overall *pattern* of manipulation" is enough to state a claim with particularity. Opp. 15. It is not: aggregate data over many years that is, allegedly, consistent with all or an unspecified percentage of VIX settlements being manipulated in unspecified ways is not "particularized." Plaintiffs cite *In re Commodity Exchange Inc. Gold Futures & Options Trading Litigation*, 213 F. Supp. 3d 631, 645 (S.D.N.Y. 2016), but in that case the plaintiff identified both the specific manipulators (the defendants themselves) and the specific mechanism of manipulation (the offering of rigged rates). No such allegations appear here.

Moreover, contrary to Plaintiffs' current assertions, replication can explain the purportedly suspicious data that Plaintiffs' economists identify. MTD 56-57. Plaintiffs say that Cboe's argument improperly rests on the assumption that "replication requires trading in the exact same proportions as was eventually used in the actual settlement for a given day," whereas the complaint "nowhere alleges that replication requires such prescient proportionality." Opp. 17. But that is what replication *means*. "'Replication' is the ability to accumulate a portfolio of the components of an index in the same proportion that each component is represented in the index." Compl. ¶ 66. The whole *point* of replication is that market participants seeking to replicate would need to trade

in the options that are used to calculate the settlement value in the same proportions that those options are represented in the VIX formula used in settlement.

Plaintiffs allege that "this begs the question of *why* far out-of-the-money puts are included in a given settlement value calculation." Opp. 17. The obvious explanation is that the price of a far out-of-the-money put provides information regarding the market's expectations regarding a substantial drop in the S&P 500 over the next 30 days, part of the overall expected volatility the VIX formula is designed to measure. Moreover, this formula has been widely publicized for over a decade and innumerable market participants have referred to it; it is implausible for Plaintiffs to suggest that they have just now discovered that the VIX formula's use of far out-of-the-money puts can only be explained as a means to facilitate market manipulation.

Plaintiffs' additional allegations are also insufficient. For instance, Plaintiffs cite the paper of Griffin and Shams (Opp. 18), but that paper similarly aggregates data and concludes only that the VIX settlement "appears susceptible to manipulation," while admitting that "we cannot fully rule out all potential explanations without more granular data." MTD 58. Likewise, Plaintiffs cite such tangential evidence as Cboe's initiation of unrelated disciplinary actions and statistical evidence regarding the market's reaction to a regulatory investigation, Opp. 16-18, but all of these allegations require a chain of circumstantial inferences that fail to satisfy Rule 9(b).

CONCLUSION

Plaintiffs' claims against the Cboe defendants should be dismissed with prejudice.

Dated: November 4, 2019

Respectfully submitted,

By: /s/ Reid J. Schar
Counsel for Cboe Defendants

CERTIFICATE OF SERVICE

I, Reid J. Schar, hereby certify that on November 4, 2019, I electronically filed the forgoing **Reply Memorandum of Law in Support of Cboe Defendants' Motion to Dismiss** using the CM/ECF system, and have verified that such filing was sent electronically using the CM/ECF system to all parties who have appeared with an email address of Record.

/s/ Reid J. Schar

Counsel for Cboe Global Markets, Inc., Cboe Futures Exchange LLC, and Cboe Exchange, Inc.